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EXAMINER	
LIANG, LEONARD S	
ART UNIT	PAPER NUMBER
2853	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/720,173	HAN, EUN-BONG	
	Examiner	Art Unit	
	LEONARD S. LIANG	2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 September 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6 and 8-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *6* is/are allowed.

6)☒ Claim(s) *1-5 and 8-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

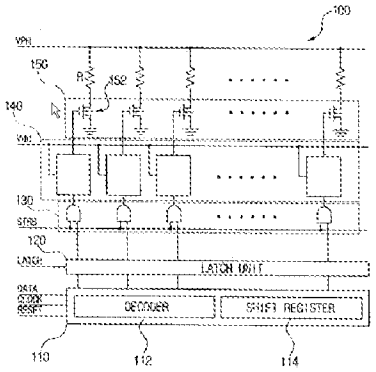
Claims 1-5 and 8-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art (AAPA) in view of Haga (US Pat 7006068).

The AAPA discloses:

- {claim 1} An inkjet printer head driving apparatus having a plurality of heating elements and nozzles (figure 1, reference 100); a switching unit to turn on and off each of the heating elements to heat ink corresponding to selected nozzles to eject the ink (figure 1, reference 150); a level shift unit having a level converter to convert a potential level of a signal input therein into a predetermined potential level to drive the switching unit (figure 1, reference 140), and a transient time extending part (figure 1-2, reference 140); a control unit to receive an external data signal, decode the received data signal, and output the decoded data signal as a nozzle selection signal to the level shift unit to select

the selected nozzles corresponding to a to-be-recorded image from the nozzles (figure 1, reference 110)

FIG. 1
(PRIOR ART)



- {claim 4} wherein the second inverter extends the transient time from the first signal level to the second signal level or a second transient time from the second signal level to the first signal level in correspondence to an output signal of the first inverter (figure 2, reference INV2)
- {claim 8} An inkjet printer head driving apparatus having a plurality of heating elements and nozzles (figure 1, reference 100); a control unit to generate a control nozzle selection signal to select a heating element and a nozzle corresponding to an image to be printed (figure 1, reference 110); a level shift unit to generate a first nozzle selection signal having a first transient time, during which a level of the first nozzle selection signal is changed between first and second levels, in response to the control nozzle selection signal, and to generate a second nozzle selection signal having a second

transient time extended by a period from the first transient time of the first nozzle selection signal (figure 1-2, reference 140); and a switching unit to turn on and off the heating element according to the second nozzle selection signal (figure 1, reference 150)

- {claim 24} wherein the switching unit comprises an FET, and a turning-on time of the FET is delayed by the period during which the first transient time of the first nozzle selection signal is extended to the second transient time of the second nozzle selection signal, to provide a sufficient time to charge and discharge a parasitic capacitance around the FET (figure 1, reference 152; specification paragraph 0006-0014, 0020)
- {claim 25} wherein the control nozzle selection signal comprises on and off signals to turn on and off the switching unit corresponding to the heating element, the level shift unit comprises a level converter to convert the control nozzle selection signal into the first nozzle selection signal having the first and second levels which are different from the on and off signals in signal level respectively (paragraph 0006-0025)
- {claim 31} An inkjet head driving unit (figure 1); a control unit to generate a nozzle selection signal to select a nozzle having a heating element (figure 1, reference 110); a level shift unit to convert the nozzle selection signal to have a predetermined level to drive the heating element between a logic high and a logic low

and having a buffer to output the converted nozzle selection signal (figure 2, reference 144), and one or more logic units to increase a time required to change the output nozzle selection signal between the logic high and the logic low (figure 1-2, reference 140); and a switching unit to turn the heating element on and off according to the output of the level shift unit (figure 1, reference 150)

The AAPA differs from the claimed invention in that it does not explicitly disclose:

- {claim 1} a first inverter to invert the signal output from the level converter, and a second inverter including at least two time extending elements to extend the inverted signal output from the first inverter by a transient time of the output potential level of the signal input from the level converter to the switching unit during which the potential level of the signal input from the level converter to the switching unit is converted from a first signal level to a second signal level and vice versa
- {claim 2} further comprising a discharging part discharging a residual voltage of a signal inputted from the level shift unit to a gate of the switching unit if the switching unit switching on and off the heating elements is turned off
- {claim 3} a first logic device connected to receive an output signal of the level converter and an output signal of the transient time extending part; a third inverter receiving an output signal of the first

logic device and having an output terminal; and a third NMOS connected to receive an output signal, and having a gate connected to the output terminal of the third inverter, a drain connected to an input terminal of the switching unit, and a source connected to a ground

- {claim 5} wherein the second inverter comprises: a first PMOS having a source connected to a voltage supply and a gate and a drain commonly connected to each other; a second PMOS having a source connected to the drain of the first PMOS and a gate connected to an output terminal of the first inverter; a first NMOS having a gate commonly connected to the gate of the second PMOS and a drain connected to the drain of the second PMOS to form an output terminal of the second inverter; and a second NMOS having a drain and a gate commonly connected to the source of the first NMOS and a source connected to ground
- {claim 6} extending a second transient time of the output level of the inputted signal by another predetermined time in accordance with an output signal generating when the level of the inputted signal is converted, the transient time being a time period during which the level is converted from the second signal level to the first signal level
- {claim 8} a level shift unit including an inverter to invert the control nozzle selection signal, a first portion to generate a first nozzle

selection signal having a first transient time, during which a level of the first nozzle selection signal is changed between first and second levels, in response to the inverted control nozzle selection signal, a second portion to generate a second nozzle selection signal having a second transient time extended by a period from the first transient time of the first nozzle selection signal, and a buffer to output the changed levels of the first and second selection signal

- {claim 9} a discharging part discharging a residual voltage of the switching unit according to the first nozzle selection signal and/or the second nozzle selection signal
- {claim 10} wherein the switching unit comprises a transistor having a first terminal coupled to the level shift unit and the discharging part, a second terminal coupled to the heating element, and a third terminal connected to a potential, and the residual voltage of the switching unit is a voltage of the first terminal
- {claim 11} wherein the discharging part is coupled to the level shift unit to receive the first and second nozzle selection signal so that the residual voltage of the switching unit is discharged according to at least one of the first transient time of the first nozzle selection signal and the second transient time of the second nozzle selection signal when the switching unit is turned on and/or off according to the second nozzle selection signal

- {claim 12} wherein the first transient time of the first nozzle selection signal comprises a first rising transient time and a first falling transient time, during which the level of the first nozzle selection signal is changed between the first and second levels, in response to the control nozzle selection signal, and the second transient time of the second nozzle selection signal comprises a second rising transient time and a second falling transient time, during which a level of the second nozzle selection signal is changed between third and fourth levels, extended by first and second periods from the first rising transient time and the first falling transient time, respectively
- {claim 13} wherein the second rising and falling transient times are longer than the first rising and falling transient times, respectively
- {claim 14} wherein the second transient time of the second nozzle selection signal has a period longer than that of the first transient time of the first nozzle selection signal
- {claim 15} wherein the second nozzle selection signal comprises a transient time disposed between the third and fourth levels during the second transient time, and the transient level comprises a first sub-transient level and a second sub-transient level
- {claim 16} wherein one of the first and second sub-transient levels of the transient level of the second nozzle selection signal has a

period longer than the first transient time of the first nozzle selection signal

- {claim 17} a discharging part discharging a residual voltage of the switching unit according to the first nozzle selection signal and/or the second nozzle selection signal, wherein the switching unit is turned off according to the second nozzle selection signal while the discharging part discharges the residual voltage of the switching unit according to the first transient time of the first nozzle selection signal
- {claim 18} wherein the first sub-transient level is not linear between the first level and the second sub-transient level, and the second sub-transient level is linear between the first sub-transient level and the second level
- {claim 19} a discharging part coupled to the level shift unit to receive the first and second nozzle selection signals to discharge a residual voltage of the switching unit according to the first nozzle selection signal and/or the second nozzle selection signal, wherein the first nozzle selection signal comprises a previous first nozzle selection signal and a current first nozzle selection signal, and the second nozzle selection signal corresponding to the previous first nozzle selection signal and the current first nozzle selection signal of the first nozzle selection signal, respectively, and the voltage of the switching unit is a residual voltage remaining in the switching

unit when the switching unit is turned off according to the previous second nozzle selection signal

- {claim 20} wherein the voltage of the switching unit is another residual voltage remaining in the switching unit when the switching unit is turned off according to the current second nozzle selection signal
- {claim 21} wherein the first nozzle selection signal comprises a first rising transient time and a first falling transient time disposed between the first and second levels, the second nozzle selection signal comprises third and fourth levels and second rising and falling transient times disposed between the third and fourth levels, and the third level of the second nozzle selection signal is disposed between the second rising and falling transient times of the second nozzle selection signal and has a period shorter than that of the first level of the first nozzle selection signal disposed between the first rising and falling transient times of the first nozzle selection signal
- {claim 22} a discharging part coupled to the level shift unit to receive the first and second nozzle selection signals to discharge a residual voltage of the switching unit according to the second rising transient times of the second nozzle selection signal before the switching unit is turned on according to one of the third and fourth levels of the second nozzle selection signal

- {claim 23} wherein the discharging part discharges the residual voltage of the switching unit according to the second rising transient times of the second nozzle selection signal before the switching unit is turned off according to one of the third and fourth levels of the second nozzle selection signal
- {claim 26} wherein a time taken to convert the on and off signal of the control nozzle selection signal into the first and second levels of the first nozzle selection signal is compensated by extending the first transient time of the first nozzle selection signal to the second transient time disposed between third and fourth levels of the second nozzle selection signal which correspond to the first and second levels of the first nozzle selection signal, respectively
- {claim 27} wherein the switching unit is turned on according to the fourth level of the second nozzle selection signal, and a time period of the fourth level of the second nozzle selection signal is shorter than that of the second level of the first nozzle selection signal
- {claim 28} wherein a total period of the second transient time and the fourth level of the second nozzle selection signal is the same as that of the first transient time and the second level of the first nozzle selection signal

- {claim 29} a discharging part discharging a residual voltage of the switching unit according to the first and second nozzle selection signals
- {claim 30} wherein the discharging part is changed between a turned-on state and a turned off state during a portion of the second transient time of the second nozzle selection signal to discharge the residual voltage of the switching unit and/or stop discharging the residual voltage of the switching unit according to the third level of the second nozzle selection signal
- {claim 31} a level shift unit having an inverter to invert the converted nozzle selection signal, the first and second logic units to increase a time required to change the inverted nozzle selection signal between the logic high and the logic low

Haga discloses:

- {claim 1} a transient time extending part comprising at least two time extending elements to extend the received signal from the buffer by a transient time of the output potential level of the signal during which the potential level of the signal inputted from the level converter to the switching unit is converted from a first signal level to a second signal level and vice versa (figure 9; column 18, lines 31-61)
- {claim 2} further comprising a discharging part discharging a residual voltage of a signal inputted from the level shift unit to a

gate of the switching unit if the switching unit switching on and off the heating elements is turned off (figure 9 (portion right of two-stage CMOS inverter); column 18, lines 31-61)

- {claim 3} a first logic device connected to receive an output signal of the level converter and an output signal of the transient time extending part; a third inverter receiving an output signal of the first logic device and having an output terminal; and a third NMOS connected to receive an output signal, and having a gate connected to the output terminal of the third inverter, a drain connected to an input terminal of the switching unit, and a source connected to a ground (figure 9; column 18, lines 31-61)
- {claim 5} wherein the second inverter comprises: a first PMOS having a source connected to a voltage supply and a gate and a drain commonly connected to each other; a second PMOS having a source connected to the drain of the first PMOS and a gate connected to an output terminal of the first inverter; a first NMOS having a gate commonly connected to the gate of the second PMOS and a drain connected to the drain of the second PMOS to form an output terminal of the second inverter; and a second NMOS having a drain and a gate commonly connected to the source of the first NMOS and a source connected to ground (figure 9; column 18, lines 31-61)

- {claim 6} extending a second transient time of the output level of the inputted signal by another predetermined time in accordance with an output signal generating when the level of the inputted signal is converted, the transient time being a time period during which the level is converted from the second signal level to the first signal level (naturally suggested by figure 9; column 18, lines 31-61)
- {claim 8} a level shift unit including a first portion generating a first nozzle selection signal having a first transient time, during which a level of the first nozzle selection signal is changed between first and second levels, in response to the control nozzle selection signal, a second portion generating a second nozzle selection signal having a second transient time extended by a period from the first transient time of the first nozzle selection signal, and a buffer to output the changed levels of the first and second selection signal (figure 9; column 18, lines 31-61)
- {claim 9} a discharging part discharging a residual voltage of the switching unit according to the first nozzle selection signal and/or the second nozzle selection signal (figure 9 (right part); column 18, lines 31-61)
- {claim 10} wherein the switching unit comprises a transistor having a first terminal coupled to the level shift unit and the discharging part, a second terminal coupled to the heating element, and a third

terminal connected to a potential, and the residual voltage of the switching unit is a voltage of the first terminal (figure 9; column 18, lines 31-61)

- {claim 11} wherein the discharging part is coupled to the level shift unit to receive the first and second nozzle selection signal so that the residual voltage of the switching unit is discharged according to at least one of the first transient time of the first nozzle selection signal and the second transient time of the second nozzle selection signal when the switching unit is turned on and/or off according to the second nozzle selection signal (figure 9; column 18, lines 31-61)
- {claim 12} wherein the first transient time of the first nozzle selection signal comprises a first rising transient time and a first falling transient time, during which the level of the first nozzle selection signal is changed between the first and second levels, in response to the control nozzle selection signal, and the second transient time of the second nozzle selection signal comprises a second rising transient time and a second falling transient time, during which a level of the second nozzle selection signal is changed between third and fourth levels, extended by first and second periods from the first rising transient time and the first falling transient time, respectively (naturally suggested by figure 9; column 18, lines 31-61)

- {claim 13} wherein the second rising and falling transient times are longer than the first rising and falling transient times, respectively (naturally suggested by figure 9; column 18, lines 31-61)
- {claim 14} wherein the second transient time of the second nozzle selection signal has a period longer than that of the first transient time of the first nozzle selection signal (naturally suggested by figure 9; column 18, lines 31-61)
- {claim 15} wherein the second nozzle selection signal comprises a transient time disposed between the third and fourth levels during the second transient time, and the transient level comprises a first sub-transient level and a second sub-transient level (naturally suggested by figure 9; column 18, lines 31-61)
- {claim 16} wherein one of the first and second sub-transient levels of the transient level of the second nozzle selection signal has a period longer than the first transient time of the first nozzle selection signal (naturally suggested by figure 9; column 18, lines 31-61)
- {claim 17} a discharging part discharging a residual voltage of the switching unit according to the first nozzle selection signal and/or the second nozzle selection signal, wherein the switching unit is turned off according to the second nozzle selection signal while the discharging part discharges the residual voltage of the switching

unit according to the first transient time of the first nozzle selection signal (figure 9; column 18, lines 31-61)

- {claim 18} wherein the first sub-transient level is not linear between the first level and the second sub-transient level, and the second sub-transient level is linear between the first sub-transient level and the second level (naturally suggested by figure 9; column 18, lines 31-61)
- {claim 19} a discharging part coupled to the level shift unit to receive the first and second nozzle selection signals to discharge a residual voltage of the switching unit according to the first nozzle selection signal and/or the second nozzle selection signal, wherein the first nozzle selection signal comprises a previous first nozzle selection signal and a current first nozzle selection signal, and the second nozzle selection signal corresponding to the previous first nozzle selection signal and the current first nozzle selection signal of the first nozzle selection signal, respectively, and the voltage of the switching unit is a residual voltage remaining in the switching unit when the switching unit is turned off according to the previous second nozzle selection signal (figure 9; column 18, lines 31-61)
- {claim 20} wherein the voltage of the switching unit is another residual voltage remaining in the switching unit when the switching unit is turned off according to the current second nozzle selection signal (naturally suggested by figure 9; column 18, lines 31-61)

- {claim 21} wherein the first nozzle selection signal comprises a first rising transient time and a first falling transient time disposed between the first and second levels, the second nozzle selection signal comprises third and fourth levels and second rising and falling transient times disposed between the third and fourth levels, and the third level of the second nozzle selection signal is disposed between the second rising and falling transient times of the second nozzle selection signal and has a period shorter than that of the first level of the first nozzle selection signal disposed between the first rising and falling transient times of the first nozzle selection signal (naturally suggested by figure 9; column 18, lines 31-61)
- {claim 22} a discharging part coupled to the level shift unit to receive the first and second nozzle selection signals to discharge a residual voltage of the switching unit according to the second rising transient times of the second nozzle selection signal before the switching unit is turned on according to one of the third and fourth levels of the second nozzle selection signal (figure 9; column 18, lines 31-61)
- {claim 23} wherein the discharging part discharges the residual voltage of the switching unit according to the second rising transient times of the second nozzle selection signal before the switching unit is turned off according to one of the third and fourth

levels of the second nozzle selection signal (naturally suggested by figure 9; column 18, lines 31-61)

- {claim 26} wherein a time taken to convert the on and off signal of the control nozzle selection signal into the first and second levels of the first nozzle selection signal is compensated by extending the first transient time of the first nozzle selection signal to the second transient time disposed between third and fourth levels of the second nozzle selection signal which correspond to the first and second levels of the first nozzle selection signal, respectively (naturally suggested by figure 9; column 18, lines 31-61)
- {claim 27} wherein the switching unit is turned on according to the fourth level of the second nozzle selection signal, and a time period of the fourth level of the second nozzle selection signal is shorter than that of the second level of the first nozzle selection signal (naturally suggested by figure 9; column 18, lines 31-61)
- {claim 28} wherein a total period of the second transient time and the fourth level of the second nozzle selection signal is the same as that of the first transient time and the second level of the first nozzle selection signal (naturally suggested by figure 9; column 18, lines 31-61)
- {claim 29} a discharging part discharging a residual voltage of the switching unit according to the first and second nozzle selection signals (figure 9; column 18, lines 31-61)

- {claim 30} wherein the discharging part is changed between a turned-on state and a turned off state during a portion of the second transient time of the second nozzle selection signal to discharge the residual voltage of the switching unit and/or stop discharging the residual voltage of the switching unit according to the third level of the second nozzle selection signal (naturally suggested by figure 9; column 18, lines 31-61)
- {claim 31} a level shift unit having an inverter to invert the converted nozzle selection signal, the first and second logic units to increase a time required to change the inverted nozzle selection signal between the logic high and the logic low (figure 9; column 18, lines 31-61)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Haga into the A.A.P.A. The motivation for the skilled artisan in doing so is to gain the benefit of providing a transient time extending part.

However, the applicant is correct that Haga does not explicitly disclose a first inverter to invert the signal output from the level converter and a second inverter including at least two time extending elements to extend the inverted signal output from the first inverter by a transient time of the output potential level of the signal input from the level converter to the switching unit during which the potential level of the signal input from the level converter to the switching unit is converted from a first signal level to a second signal level and vice versa.

However, collectively, stage 1 and stage 2 of the two-stage CMOS inverter disclosed by Haga serves as a transient time extending part. Essentially, the difference between the two-stage CMOS inverter system of Haga and the transient time extending part 243 of the applicant's invention is that the stages in the applicant's invention are reversed; the applicant lists the single inverter (stage 2 of Haga) first and then the second inverter 243 (stage 1 of Haga).

KSR v. Teleflex taught that when formulating an obviousness rejection, an examiner should expect that a person of ordinary skill in the art will exercise ordinary creativity, common sense, and logic. KSR v. Teleflex also taught that the teaching, suggestion, and motivation test (TSM test) can be used as a basis for making an obviousness rejection, but examiners should not conclude that an invention is unobvious simply because a rejection based on TSM cannot be made.

In the arguments throughout the prosecution history of this case, the applicant has argued that the difference between their invention and the A.A.P.A. is the presence of a transient time extending part 243, which comprises a two-stage inverter structure. More than any other component of the invention, this transient time extending part is the part that raises the inquiry of novelty. Haga teaches that a two-stage inverter structure is known to extend transient time. Collectively, it appears that the two-stage inverter structure will extend transient time regardless of whether stage 1 proceeds stage 2.

The examiner believes that it would have been obvious to one of ordinary skill in the art to design a transient time-extending two-stage inverter system with

either a first inverter followed by a second inverter including at least two time extending elements, or a second inverter followed by the first inverter; such an arrangement would be an obvious design choice. The examiner could not make this assertion if the arrangement of a first inverter stage followed by a second inverter stage resulted in a significant functional difference from an arrangement comprising a second inverter state followed by a first inverter stage. However, regardless of the arrangement, both arrangements appear to perform the same function, which is to extend transient time.

In light of KSR v. Teleflex, the examiner does not believe that an allowance can be granted for what is essentially a two-stage inverter structure that is deemed a "transient time extending part." A two-stage inverter structure which extends transient time is known in the art. The examiner is looking at the two inverter portions of a two-stage inverter system as a collective whole. That collective whole appears to perform the same function of extending transient time, regardless of the order of the individual inverters.

Allowable Subject Matter

Claim 6 is allowed.

The following is an examiner's statement of reasons for allowance: The reason claim 6 is allowed, but none of the other claims are allowed, is because claim 6 is directed to a control method, whereas the other claims are directed to apparatuses. The examiner felt that the KSR v. Teleflex argument made above could apply to apparatuses, but could not apply to methods.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

Applicant's arguments filed 09/19/08 have been fully considered but they are not persuasive.

The applicant's arguments pertaining to the amended claim language have been addressed above.

The applicant also makes an argument that there would be no motivation to combine Haga and A.A.P.A. because doing so would destroy the purpose and functionality of Haga. However, Haga is not the primary reference. Haga is used to teach a specific limitation missing from A.A.P.A.; A.A.P.A. is not being incorporated into Haga. As seen in the above rejection, A.A.P.A. is nearly identical to the applicant's invention except for the disclosure of a transient time extending part which comprises a two-inverter structure. Haga teaches this. As discussed above, the examiner does not consider the claiming of the two inverter structure in a manner that switches the location of the first and second inverter stages to be sufficient for allowance in light of KSR v. Teleflex.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEONARD S. LIANG whose telephone number is (571)272-2148. The examiner can normally be reached on 8:30-5 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/L. S. L./
Examiner, Art Unit 2853
12/22/08

/Manish S. Shah/

Primary Examiner, Art Unit 2853